CHAPTER 6:

Psychiatric & Neurologic Conditions

There are several neuropsychiatric complications associated with HIV infection. These complications have numerous etiologies. Awareness of them will assist clinicians in appropriate client assessment, referral, and treatment. In almost all cases, access to a clinician with skills in neuropsychiatric assessment and treatment is essential.

Neuropsychiatric conditions are rarely isolated occurrences. Instead, they generally occur in conjunction with other medical, mental health, and substance abuse problems. These complications, particularly when left untreated, are associated with increased morbidity and mortality, impaired quality of life, and numerous psychosocial challenges, such as nonadherence with the treatment regimen. The complexity of these conditions should encourage all mental health clinicians to incorporate multidisciplinary approaches to client-centered care.

For the purposes of this Practical Guide, neuropsychiatric complications are categorized as follows:

- Disorders attributed to HIV in the brain
- Disorders due to medical complications of HIV infection
- Psychiatric disorders
- Serious mental illness

For each of these conditions, comprehensive management strategies require skilled interventions that utilize psychotropic medication management, medical treatment, behavioral management, and psychosocial care.

Estimated Prevalence (Past 12 Months) of Selected Psychiatric and Substance Use Disorders Among 1,837 Clients Served in the Demonstration Program

MOOD AND ANXIETY DISORDERS (%)					SUBSTANCE USE DISORDERS (%)	
Major Depression	Dysthymia	GAD	Agoraphobia	Panic Attack	Alcohol Dependence	Drug Dependence
58.8	22.4	25.5	14.3	24.7	22.1	47.6

DISORDERS ATTRIBUTED TO HIV IN THE BRAIN

HIV-Associated Dementia (HAD). Clients who develop HAD generally will experience abnormalities in their cognitive and motor abilities that significantly impair their ability to function effectively. HAD signals progression to AIDS for those HIV-positive persons not yet meeting AIDS-defining criteria. Generally, HAD occurs in later stages of HIV infection, and debilitating symptoms may progress over time. Pharmacological treatments include antiretroviral therapies and psychotropic medications. This condition cannot be diagnosed when a client is simultaneously experiencing delirium (see below). Screening instruments that may be helpful in diagnosing HAD include the Mini-Mental State Examination (Folstein et al, 1975) and the HIV Dementia Scale (Power et al, 1995).

Minor Motor-Cognitive Disorder (MMCD). Clients who develop MMCD will experience mild and sometimes subtle decrements in their motor or cognitive functioning. Examples include clients who have slight difficulty coordinating finger or hand movements, but not to the extent that use of their fingers or hands is severely limited. Similarly, clients may develop mild impairments in memory, but not to the extent that their impairment is noticeable by others. MMCD does not necessarily progress to HAD.

Delirium. This neuropsychiatric disorder is characterized by a disturbance of consciousness (i.e., reduced clarity or awareness of one's environment) with reduced ability to sustain attention. Delirium is accompanied by memory problems and perceptual disturbances, such as illusions (e.g., misinterpreting objects or persons as something else). The condition develops over hours to days and fluctuates throughout the day. Delirium is the most common neuropsychiatric complication in hospitalized persons with HIV who are severely ill. A screening instrument helpful in diagnosing delirium is the Mini-Mental State Examination (Folstein et al, 1975).

Treatment. Primary treatment for these conditions attributed to HIV in the brain consists of medical management (e.g., psychotropic and antiretroviral agents) in combination with psychotherapeutic and support services.

DISORDERS DUE TO MEDICAL COMPLICATIONS OF HIV INFECTION

The course of HIV infection may include medical complications that create changes in one's mental status that mimic more common psychiatric conditions, such as depression, mania, anxiety, and psychosis. The most critical feature of treatment is accurate diagnosis and treatment of the medical causes. Although psychotropic medications often are warranted for symptom relief, at least temporarily, overall management should focus on treating the underlying medical complication(s). When these conditions occur, coordinated care with medical providers is absolutely essential.

These complications highlight the need for clinicians to be aware of and knowledgeable about clients' medications and substance use patterns and to be suspicious of major changes in mental status, particularly among clients with more advanced illness or those on many medications.

Treatment. Primary treatment for these conditions due to complications of HIV infection relies on treatment of the underlying medical etiology.

Possible Underlying Causes of Common Medical Complications Associated with HIV

Medical Complication	Possible Causes
Opportunistic brain infections	
	Toxoplasmosis
	Cryptococcal meningitis
	Cytomegalovirus infection
	Tuberculosis
	Progressive multifocal leukoencephalopathy
Opportunistic cancers	
	Lymphoma
	Kaposi's sarcoma
Metabolic complications	
	Fever,
	Anemia
	Blood infections
	Hypoxia
Drug-to-drug toxic interactions	
	Corticosteroids
	Alpha-interferon
	Protease inhibitors
Psychoactive substance use complications	
Recreational	
	Cocaine
	Alcohol
	Methamphetamine
	Hallucinogens
	Nitrate inhalant
	Opiates
Prescribed	
	Sedative hypnotics
	Opiates
	Psychostimulants

PSYCHIATRIC DISORDERS

Numerous psychiatric disorders have been identified among people with HIV infection. Some of these disorders may have existed prior to the HIV diagnosis, while others may have developed during the course of living with HIV. Some of the more common conditions are listed below.

Psychiatric Conditions	Examples of Symptoms
Mood Disorders	
▪ Depression	Pervasive sadness, apathy, fatigue, suicidal ideation, hopelessness, appetite and sleep changes
▪ Mania (Bipolar Disorder)	Increased energy, decreased need for sleep, racing thoughts, grandiosity
Psychotic Disorders	
▪ Schizophrenia	Auditory hallucinations, delusions, thought disorders
Anxiety Disorders	
▪ Generalized anxiety disorder, panic disorder, obsessive-compulsive disorder, post-traumatic stress disorder	Nervousness, heightened arousal, panic attacks, intrusive anxiety-provoking thoughts, obsessions/rituals, flash backs
Adjustment disorders	Depression and/or anxiety of less severity and directly related to an identifiable stressor
Personality disorders	Persistent, maladaptive life behaviors that interfere with interpersonal relationships
Sleep disorders	Difficulty initiating and/or maintaining sleep
Sexual functioning disorders	Diminished libido, difficulty having an orgasm, difficulty obtaining or maintaining an erection
Constitutional problems	
▪ Chronic fatigue	Chronic lack of energy
▪ Wasting syndrome	Chronic muscle wasting
▪ Pain	Chronic pain from such conditions as neuropathy

Psychotropic Medications

Psychotropic medications, such as those agents used to treat depression, anxiety, psychosis, and other conditions, are well tolerated and clearly efficacious for persons living with HIV infection. Psychiatric disorders should be treated aggressively with these medications when warranted, especially since untreated disorders can impair one's quality of life and may be linked to increases in HIV transmission risk behaviors (e.g., unsafe sex and drug use practices). Psychotropic agents should be used judiciously in persons on antiretroviral and other HIV-related medications. In most cases, psychiatrists should manage these medical regimens. The combined use of psychotropic agents and protease inhibitors requires careful attention to routes of metabolism of each of these medications. Because the medications can alter the metabolism of each other, they are best prescribed and monitored by clinicians with an understanding of potential drug-to-drug interactions, side effects, and routes of metabolism. These medications can be used safely and effectively when combined. However, informed treatment and close monitoring is essential.

Treatment. Mental health treatment of psychiatric disorders should be client-centered, individualized, and comprehensive to encompass the full spectrum of biopsychosocial needs. In most cases, due to the complexity of these conditions, no single modality of treatment will suffice. Clinicians should consider a full range of treatments, including psychopharmacology; cognitive-behavioral, interpersonal, psychodynamic, and other psychotherapies aimed at individuals, groups, families, and couples; intensive case management; psychosocial rehabilitation; partial hospitalization; day treatment programs; substance abuse counseling; and others.

...client-centered, individualized, and comprehensive...

For persons with serious mental illness, treatment may need to be uniquely tailored to strengthen diminishing social support systems. To promote stability and treatment adherence, consideration must be given to supportive housing, living arrangements, vocational rehabilitation, outreach, and strong linkages with other community resources. Persons with serious mental illness who are not engaged in mental health care are less likely to be engaged in HIV primary medical care (Cournos & McKinnon, 1997). Moreover, they are at higher risk of being lost in the system due to homelessness, incarceration, rehospitalization, and substance abuse relapse. For all of these reasons, diagnosis or identification of mental illness, including HIV-related neuropsychiatric complications, requires aggressive treatment and is a critical component to the overall health care of HIV positive clients.

Caroline's Story

Caroline was an attractive woman in her mid-30s with a pleasant disposition and a ready smile. Diagnosed with schizophrenia and HIV-associated dementia, Caroline's situation was further complicated by volatile and poorly controlled diabetes. While her schizophrenia was stabilized through regular intramuscular injections of Haldol Decanoate, her short-term memory was impaired by HIV-associated dementia, ruling out the possibility that she could adequately adhere to the range of medical treatments she required on her own.

Neuropsychiatric testing revealed that, in addition to short-term memory loss, Caroline had difficulty concentrating, planning, or solving problems. These cognitive deficits prevented her from being able to check her glucose levels (which had soared to as high as 410), determine if she needed insulin, and inject the proper amount. Although her HIV infection was not yet advanced, adherence to needed HIV medications also was problematic.

Her psychological counselor quickly realized that a series of external supports were needed to ensure Caroline's survival. The counselor enrolled her in a psychosocial support day program and arranged for a Medicaid waiver that provided for a nurse to go into the home twice a day to administer Caroline's insulin. She was then placed in a group home in which overnight staff could ensure that she didn't eat middle-of-the-night snacks that would elevate her blood sugar levels or light up cigarettes she might forget to put out. The counselor involved Caroline's family in treatment planning and educated them about her medical condition and her cognitive limitations. Close coordination with the public health nurses, the residential counselor, and Caroline's family members has resulted in a safe and supportive environment where Caroline retains some freedom and self-direction, but where her biopsychosocial needs are met.

SERIOUS MENTAL ILLNESS

Serious mental illnesses (SMI), particularly those illnesses which cause persons to experience severely distorted thinking or cognitive impairment, pose unique challenges in HIV treatment. Serious mental illnesses may be conditions that are directly attributed to HIV infection, such as the neurocognitive disorders previously described (e.g., HAD), or conditions that existed before a person becomes HIV-positive, such as schizophrenia, bipolar disorder, and severe personality disorders. These conditions create numerous challenges for clients and providers alike, including increased likelihood of the client engaging in high-risk behaviors and other maladaptive health behaviors, such as substance abuse and treatment nonadherence.

Persons with SMI often experience high rates of unemployment, poverty, and homelessness. For these reasons, persons with SMI typically lack access to health care, substance abuse treatment, HIV primary medical care, and new antiretroviral therapies. As a result, persons with SMI are likely to have shortened HIV-related survival, severely impaired quality of life, and more complications from HIV and other medical problems that disproportionately affect persons who are marginalized in health care systems.